# FACT SHEET
# FOR DRAFT LPDES PERMIT NO. LAS000401 FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) WITHIN THE CITY OF SHREVEPORT OWNED OR OPERATED BY

## CITY OF SHREVEPORT
## LA DEPT OF TRANSPORTATION AND DEVELOPMENT (LDOTD) (DISTRICT 04)
## CADDO LEVEE DISTRICT

**AI 90430 / PER20080001**

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|---|---|
| Permit No. | LAS000401 |
| Issuing Office: | State of Louisiana<br>Department of Environmental Quality<br>Office of Environmental Services<br>Water Permits Division |
| Prepared By: | Linda Gauthier<br>Municipal and General Water Permits Section<br>(225) 219-0801 |
| Date Renewal Application Received: | March 31, 2008 |
| Permit Action: | Reissuance of LPDES permit that was issued on August 28, 2003, and modified on December 19, 2003 for the regulated Municipal Separate Storm Sewer Systems (MS4s) within the City of Shreveport |
| Date Prepared: | April 15, 2008 |

## REISSUANCE OF AN EXISTING PERMIT

The Louisiana Department of Environmental Quality is today proposing to reissue the Louisiana Pollutant Discharge Elimination System (LPDES) Permit No. LAS000401 issued for discharges from the regulated Municipal Separate Storm Sewer Systems (MS4s) within the City of Shreveport owned or operated by the City of Shreveport, the State of Louisiana Department of Transportation and Development (District 04) (LDOTD), and the Caddo Levee District (CLD).

## OVERVIEW OF CO-PERMITTEES' AREAS OF RESPONSIBILITY

Each co-permittee has developed and implemented a Storm Water Management Program which identifies sources of pollution and describes Best Management Practices (BMPs) that are used to prevent or control discharges of pollutants into storm water runoff from areas other than agricultural properties located within the City of Shreveport.

The LDOTD Caddo Parish Highway Maintenance Superintendent inspects all LDOTD owned roads in Caddo Parish on a bi-weekly schedule, including roads within the corporate limits of the City of Shreveport. Maintenance of drainage structure is performed on a "complaint basis" rather than on a regular schedule.

LDOTD maintains a storm water retention basin located at I-220 and LA 173 (Shreveport-Blanchard Road) that is discharged and visually inspected quarterly dependent on the amount of rainfall accumulation in the impoundment.

LDOTD maintains a mowing and litter agreement where the City of Shreveport is contracted to maintain vegetative growth (green areas) and litter control for LDOTD routes within the corporate limits of the City of Shreveport. In response to citizen complaints, LDOTD licensed herbicide applicators apply some chemicals in an effort to eradicate some noxious species. All chemicals are applied according to the product labels.

The Caddo Levee District (CLD) has jurisdiction over the following channels within the City of Shreveport:

(1) Sand Beach Bayou – LA Hwy 1 to confluence of Bayou Pierre for a distance of 5.9 miles;
(2) Lateral C-8 – Levee toe at Harts Island Road to confluence of Sand Beach for a distance of 2.3 miles;
(3) Lateral C-6 – Levee toe at East 70$^{th}$ Street to confluence of Sand Beach for a distance of 2.3 miles;
(4) Dixie Garden Ditch – Levee to drainage to confluence of Lateral C-6 for a distance of 1.5 miles; and
(5) Bayou Pierre – from Ockley Drive to Flournoy Lucas Road for a distance of 2.66 miles.

The City of Shreveport has developed a comprehensive storm water management program that involves multi-department and inter-agency (co-permittee) collaboration. The goal of the storm water management program is to reduce or eliminate the discharge of chemical and physical pollutants in storm water runoff from areas within the incorporated boundaries of the City of Shreveport.

The City of Shreveport, the LDOTD, and the CLD have an interagency agreement that clearly identifies the roles and responsibilities of each permittee (see **City of Shreveport Storm Water Management Plan** (March 2008 Revision), *Section 12.0, Legal Authority*).

The programs and activities that the co-permittees have implemented to fulfill the requirements of their permit are described in detail in the following two documents, which are included in the public notice package:

(1) City of Shreveport Storm Water Management Plan (March 2008 Revision)

(2) City of Shreveport, Louisiana NPDES Permit No. LAS000401 Permit Reapplication and Year 12 Annual Report (March 18, 2008)

Both documents are attached as an addendum to the permit. The SWMP will be available for public comment during the public notice comment period.

The proposed permit is similar to the 2003 permit, and will authorize the discharge of storm water from the MS4s within the incorporated limits of the City of Shreveport that are owned or operated by the City of Shreveport, LDOTD (District 04), and CLD consistent with the terms of the permit.

## I. BACKGROUND

Federal Environmental Protection regulations found at 40 CFR 122.26 define storm water discharges that require NPDES permits. 40 CFR 122.26.D.3 specifically states that storm water discharges from large and medium MS4s require an NPDES permit. As an NPDES-authorized state, the Louisiana Department of Environmental Quality (LDEQ), Office of Environmental Services is authorized to issue LPDES permits, including permits for storm water discharges from large, medium and small MS4s (see LAC 33:IX.2511.A.3 and LAC 33:IX.2519). The EPA Storm Water Phase II Final Rule which promulgated regulations for storm water discharges from Small MS4s was published on December 8, 1999 in the *Federal Register*. Regulations found at 40 CFR 122.34(a) and LAC 33:IX.2523.B require Small MS4s to implement six minimum control measures to reduce pollutants in urban storm water discharges to the Maximum Extent Practicable (MEP) and those six minimum control measures are a requirement of the LPDES General Permit for Storm Water Discharge from Small Municipal Separate Storm Sewer Systems. In order to consistently regulate storm water discharges from urbanized areas and to provide clear criteria for judging program implementation and effectiveness, EPA guidance recommends that individual permits for large and medium MS4s incorporate the Phase II standards for regulated Small MS4s. In accordance with EPA's Storm Water Phase II Final Rule and EPA's 8/1/96 policy "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits," the proposed Phase I MS4 permit requires the use of best management practices (BMPs) to control the quality of storm water discharges to the MEP standard from the regulated area and the development of measurable goals to measure the effectiveness of the BMPs that are implemented in accordance with the Storm Water Management Plan (SWMP). The EPA policy document is available online at http://www.epa.gov/npdes/stormwater/.

MS4 technology standards of MEP and an effective prohibition on non-storm water is the statutory standard that establishes the level of pollutant reductions that operators of regulated

MS4s must achieve. Regulated MS4s shall require controls to reduce the discharge of pollutants to the MEP, including management practices, control techniques and system design and engineering methods. In order to better assess progress in achieving MEP, the Measurable Goals required for regulated Small MS4s have been included in the renewal permit. In order to maintain consistency in regulating storm water discharges from large, medium and regulated Small MS4s the renewal permit requires that the permittee develop Measurable Goals (see Part II, item #13 of permit) for the BMPs identified in the SWMP and used to satisfy requirements of the control measures identified in the permit.

The LDEQ is today proposing to reissue the NPDES permit LAS000401 that was originally issued by the Environmental Protection Agency (EPA) for Municipal Separate Storm Sewer Systems (MS4s) within the incorporated limits of Shreveport that became effective on June 1, 1996. The NPDES permit was reissued as an LPDES permit effective October 1, 2003. The existing permit authorizes the discharge of storm water from the MS4s within the incorporated limits of the City of Shreveport that are owned or operated by the City of Shreveport, LDOTD (District 04), and CLD.

## II. SUMMARY OF PROPOSED CHANGES

The major differences in the renewal permit and the existing permit include:

1. Incorporation of the following control measures in the SWMP requirements in the renewal permit:
   Part II.A.12. Pollution prevention/good housekeeping for municipal operations.
   Part II.A.13. Measurable Goals.

2. Clarification that authorized discharges must be protective of water quality (Part I.B.1) and the stipulation that permittees must describe how the storm water management program addresses pollutants of concern with regard to water quality impairment.

3. The requirement that the permittees develop and implement BMPs for the control measure "Pollution Prevention/Good Housekeeping for Municipal Operations".

4. The requirement that the permittees develop and implement Measurable Goals to assess the effectiveness of the BMPs used to satisfy the requirements of the Control Measures specified in Permit Part II.A.1-12.

5. Updated Table V.A.1.a to:
   Include the addition of the following parameters: Sulfates, Chlorides, and Color.

6. Updated Table III.A to include requirement to:
   Submit an update report and certification of program updates in the Annual Report required under Part V.C. for the following Storm Water Management Program Components:

Monitoring – Part II.A.11.c
Representative Monitoring – Part V.A.
Legal Authority – Part II.E.
Roles of Permittees – Part II.D.
Measurable Goals – Part II.A.

7. Revised footnotes on page 3 of Part V for clarity.

8. Revised Page 7, Part V.C.2 to include new permit requirements related to BMPs and Measurable Goals.

9. Added Part II.I to describe how a municipality can have its construction storm water program recognized as a QLP by LDEQ.

## III STATE WATER QUALITY STANDARDS

Receiving waters for discharges from the MS4s and their designated uses* are:

100101 – Red River – A B C D F
100304 – Twelve Mile Bayou – A B C D F
100305 – Mahlin Bayou and McCain Creek – B L
100308 – Paw Paw Bayou – A B C D F
100309 – Cross Bayou – A B C D F
100310 – Cross Lake – A B C D F
100601 – Bayou Pierre – A B C F
100602 – Boggy Bayou – A B C F
100603 – Wallace Lake – A B C F
100604 – Wallace Bayou – A B C F

*A = Primary Contact Recreation; B = Secondary Contact Recreation; C = Fish and Wildlife Propagation; D = Drinking Water Supply; F = Agriculture; and L = Limited Aquatic Life and Wildlife Use

Eight of the basin subsegments listed above are currently not meeting state water quality standards. The receiving waters that are not meeting state water quality standards are listed below with summaries of the causes of impairment:

### Table A - Receiving Water Status Summaries

| Segment | Segment Name | Segment Impairments[1] |
|---|---|---|
| 100101 | Red River From Arkansas state line to US 190 in Alexandria | TMDLs REQUIRED: Sulfates, Color |
| 100304 | Twelve Mile Bayou – From headwaters to Red River | NOT IMPAIRED |
| 100305 | Mahlin Bayou and McCain Creek – From headwaters to Twelve Mile Bayou | NOT IMPAIRED |

| | | |
|---|---|---|
| 100308 | Paw Paw Bayou – From Texas state line to Cross Lake; includes tributaries | TMDLs NOT REQUIRED: Dissolved Oxygen, Chloride, Color, Sulfates, TDS |
| 100309 | Cross Bayou – From Texas state line to Cross Lake | **TMDLs FINAL** (March 26, 2007): Chlorides, Sulfates, Suspended Solids, Turbidity and TDS<br>TMDLs NOT REQUIRED: Nutrients, Color, Dissolved Oxygen, Phosphorus |
| 100310 | Cross Lake | TMDLs REQUIRED: Copper |
| 100601 | Bayou Pierre – From headwaters to Bayou Pierre | **TMDLs FINAL** (March 21, 2008): Organic Enrichment/Low DO, Nutrients |
| 100602 | Boggy Bayou – From headwaters to Wallace Lake | **TMDLs FINAL** (March 26, 2007): Nutrients, Organic Enrichment/Low DO, Sedimentation/Siltation, Turbidity |
| 100603 | Wallace Lake | **TMDLs FINAL** (March 26, 2007): Sedimentation/Siltation, Turbidity<br>TMDLs NOT REQUIRED: Organic Enrichment/Low DO, Nitrate/Nitrites, Non Native Aquatic Plants, Phosphorus |
| 100604 | Wallace Bayou – from Wallace Lake to Bayou Pierre | TMDLs NOT REQUIRED: Organic Enrichment/Low DO |

[1]The impairments that are listed in the column titled "Segment Impairments" are the impairments that are listed on the 2004 303(d) List of Impaired Water Bodies: Including EPA's Additions. TMDL reports are maintained and regularly updated on the LDEQ web site at http://www.deq.louisiana.gov/portal/tabid/1563/Default.aspx. Permittees should check the web site frequently to determine the final TMDL status of subsegments that require TMDLs for specific pollutants that are causing impairments and make appropriate adjustments to incorporate the requirements of any TMDL into the SWMP.

## IV DISCHARGES TO 303(d) LISTED IMPAIRED WATER BODIES

The storm water outfalls that are covered in the permit are located in the Red River Basin. According to Table A, TMDLs have been completed to address some water quality impairments; TMDLs have not yet been completed for subsegments 100101 and 100310; and TMDLs are not required to address some impairments. TMDLs are not required under the following scenarios:

(1) Waterbody or formerly listed impairment is now attaining all uses and standards;

(2) Waterbody is meeting some uses and standards but there is insufficient data to determine if other formerly listed impairments are attaining uses and standards;

(3) There is insufficient data to determine if any uses and standards are being attained;

(4) Waterbody is impaired for one or more uses, but a TMDL has been completed for the specific impairment;

(5) Waterbody is impaired for one or more uses but other control measures are expected to result in attainment of designated uses; or

(6) Waterbody is impaired for one or more uses, but a pollutant does not cause the impairment.

TMDLs are water quality assessments that determine the source or sources of pollutants of concern for a particular waterbody, consider the maximum amount of pollutants the waterbody can assimilate, and then allocate to each source a maximum quantity of each pollutant of concern that it is allowed to discharge (i.e., a "wasteload allocation").

As each waterbody and its associated causes of impairment are assessed, a determination is made to remove any parameters that are determined not to be causes of impairment; to perform further studies if necessary; to delist any basin subsegments that are determined to be meeting State water quality standards; and to set appropriate parameter-specific TMDLs for all basin subsegments determined not to be meeting State water quality standards. This permit may be reopened in accordance with Part III of the Fact Sheet in order to maintain applicable water quality standards for each waterbody if TMDLs indicate such a need.

On March 31, 2005, the EPA approved the Louisiana Category 5 Final 2002 Integrated Report and the Category 5 Final 2004 Integrated Report with additions made by the EPA. Both lists have been compiled into one list of 303(d) listed impaired water bodies that required the development of TMDLs. That compilation of the current and complete EPA-approved 2002 and 2004 303(d) lists is titled "2004 303(d) List of Impaired Waters: Including EPA's Additions" and is available on the LDEQ website at http://www.deq.louisiana.gov/portal/tabid/130/Default.aspx. That list is periodically updated. The permittees should review the list periodically to keep informed of changes to the list and the establishment of additional TMDLs for listed impairments for which TMDLs are required (see Table A).

The permittee must document in its SWMP how the BMPs and other controls implemented in its SWMP will control the discharge of any pollutant(s) of concern (POCs) for discharges into a receiving water which has been listed on the Clean Water Act 303(d) list of impaired waters. If a TMDL has been approved for a waterbody, the permittee will be required to describe how its SWMP is consistent with any TMDL requirements applicable to MS4 discharges into basin subsegments where TMDLs have been established.

For the basin subsegment numbers that receive storm water runoff from the regulated MS4s serving the **City of Shreveport** the permittees' SWMP must address any impairments that have been identified in Table A (above) under the categories "TMDLs Required" and "TMDLs Final". The permittees must describe how the BMPs and other control(s) selected for the SWMP will minimize, to the MEP, the discharge of those pollutants from the permitted MS4s.

The permittee must document in its SWMP how the BMPs and other controls implemented in its SWMP will control the discharge of pollutants for which TMDLs have been established in basin subsegments **100309, 100601, 100602,** and **100603, as well as those pollutants for which TMDLs are required (subsegments 100101, 100310).**

In addition to documenting consistency with all applicable TMDLs, the permit requires that the permittee specifically address measures to be used to meet the following Summer DO WLA target:

49.87 lbs/day of oxygen demanding pollutants which is equivalent to a 46% reduction in the discharge of oxygen demanding pollutants during summer months. (Note: The WLA is

established in the document *TMDLs for Dissolved Oxygen and Nutrients for Boggy Bayou, LA: Subsegment 100602, Dated March 24, 2008 (Table 6.1).* Page 2-3 of the TMDL document recognizes that the WLA is not a permit limit and the City of Shreveport must identify and implement best management practices (BMPs) to minimize pollutants in storm water discharges in an effort to meet the WLA target.)

The permittee's existing permit requires sampling and analysis for all the pollutants addressed in the TMDLs except Sulfates, Chlorides, and Color. The proposed permit contains the sampling and analysis requirements that are identical to the existing LPDES permit, plus monitoring requirements for three additional parameters: Sulfates, Chlorides, and Color. These three parameters are included in the monitoring requirements in the renewal permit because they have been identified as a source of impairment in at least one receiving subsegment and TMDLs have not been completed for those parameters. Monitoring for Sulfates, Chlorides, and Color will allow the municipality to determine if the pollutants are being discharged from any of their permitted outfalls and to implement BMPs to control sources of the pollutants if it is determined that they are present. Effluent limitations were not assigned to the monitoring parameters because the TMDLs that were completed did not assign WLAs for discharges from the City of Shreveport MS4 systems. The TMDLs recommend that LPDES permits for point sources located within the impaired basin subsegments contain monitoring requirements to determine if the point sources are causing or contributing to the impairment.

Monitoring requirements established in the permit will provide data to determine if the MS4 discharges are causing or contributing to existing water quality impairments. Pollutant concentrations obtained during monitoring events will help assess the effectiveness of the BMPs that the permittee has implemented to control the discharge of pollutants, including those pollutants for which TMDLs were established.

The permittees' SWMP currently consists of many activities and measures to control the basic classes of pollutants that cause water quality impairments. A brief synopsis of just some of the many activities that are conducted by the permittees to fulfill permit requirements include:

**1. Structural Controls and Storm Water Collection System Operation** – The permittees inspect major drainage channels twice per year to ensure adequate flow capacity and to remove excessive siltation, vegetation and floatable matter. Close portions of the system are inspected in response to complaints. The Streets and Drainage Division has implemented the Shreveport Neighborhood Assistance Program (SNAP) to clean and maintain curbs, sidewalks, signs, etc. on a scheduled basis. The City has developed the Geographic Information System permit compliance system (GISPCS) to proactively manage the maintenance activities for the storm sewer system. The City is updating its GIS to show underground conveyances and features, open channels, and other features, to give the City an up to date, accurate model of its storm sewer system. The data used in the GIS are useful in the industrial and high risk, dry and wet weather screening, and the illicit discharge and improper disposal programs.

**2. Areas of New Development and Significant Re-Development** – The City has published two manuals and other documents which present technical criteria for controls designed to minimize the discharge of pollutants from areas of new development and redevelopment after construction is complete. The City has employed a Certified Professional Engineer to review each plan for

new development and re-development projects to verify that the plan meets the City's regulatory requirements. A building permit is not issued for a project until the Engineer has signed off on the plan.

3. **Roadways** – The City utilizes chemical and non-chemical forms of pesticides. The non-chemical practice includes utilizing mechanical methods such as beaver traps. The majority of herbicide application is handled by licensed herbicide applicators. Winter weather BMPs typically consists of using silica sand for traction on isolated bridges. Manual sweeping is used for collection of sand following a deicing event. Very minor amounts of salt are used occasionally for deicing for high traffic or profile areas. City personnel and subcontractors use erosion control practices to minimize erosion from construction and maintenance activities and re-vegetate disturbed areas as quickly as possible to minimize erosion from roadway construction and maintenance activity. The City instructs concrete truck drivers to rinse their trucks at the facility where the concrete is purchased. City personnel use two small street sweepers to clean up the streets of the Central Business District. Manual sweeping increases during the winter months to prevent clogging of the storm sewer system by leaves and other tree trimmings that cause storm sewer overflows. The City has a regular litter collection program to reduce the amount of floatable materials in storm water runoff. Litter is collected in the Central Business District and the Entertainment District after public gatherings such as festivals. Many community groups collect litter in residential and other suburban areas of the City. Litter collection occurs along state routes prior to mowing again immediately following the mowing. Quantities of litter collected are recorded and that information is used in the permittee's annual report. The City typically cleans up approximately 25 illegal dumping sites per year. Materials collected during the cleanup are transported to the landfill for disposal.

4. **Flood Control Projects** - The permittee has implemented runoff detention requirements, flood plain development restrictions, and channel improvement procedures to improve water quality of storm water discharges from these areas and activities. The City conducted a survey to determine the practicability of retro-fitting fifteen existing flood management projects to aid in the reduction of pollutants in storm water runoff. The City identified some areas where modification to existing storm water management control structures might result in water quality improvements; however, it was determined that the projects are not economically feasible. Based on the results of the survey, all new drainage and significantly modified existing drainage structures will be fitted with methods to retain oil, grease and sediment in an effort to improve water quality of storm water discharges from the structures. The City has implemented a requirement that the City Engineer must approve all engineering design of flood control related projects and that all such projects must include an analysis of the impact of the project on storm water quality and quantity.

5. **Pesticide, Herbicide and Fertilizer Applications** - The City has reduced the in-house use of pesticides, herbicides and fertilizers, through mechanical mowing and other non-chemical means to control unwanted vegetation and pests and the use of native plants and xeriscape techniques. Only staff and subcontractors who are licensed applicators are allowed to apply chemicals for the City. These licensed applicators perform occasional applications. Departments which use chemicals order them on an as-needed basis in order to limit the quantities which are stored and to reduce the need for expensive disposal of outdated chemicals. The Departments have performed assessments of chemical type and usage to ensure that the least toxic type of chemical

is being used. The City has established Standard Operating Procedures (SOPs) for handling, use, storage, and disposal of pesticides, herbicides and fertilizers for Streets and Drainage and Shreveport Public Assembly and Recreation (SPAR) Grounds Maintenance Division. The City developed a Storm Water web page that is available to the public that provides general information concerning the use of pesticides, herbicides, and fertilizers, how the public can prevent pollution of water resources, and other storm water related information.

**6. Illicit Discharges and Improper Disposal** – As required by the permit, the City of Shreveport Storm Water Quality Ordinance contains a list of allowable non storm water discharges that may be discharged to the city's storm sewer system and a list of prohibited discharges. The City of Shreveport's Department of Operational Services (DOS) has implemented a Capacity, Management, Operations and Maintenance (CMOM) Program to prevent unpermitted discharges of dry and wet weather overflows from sanitary sewers into the MS4. The CMOM Program is described in detail in the City's SWMP. The City has implemented a litter control program in conjunction with its Roadways Maintenance Program. The City has installed two inlet structures as part of a continuing program to upgrade drainage projects, and plans to install more stations as funds become available. The inlets are designed to collect floatable materials, sediments, and oil and grease. The City operates a widely publicized recycling center that accepts used motor oil and numerous full-service lubrication centers and some service stations accept used motor oil for recycling. The Shreveport Regional Recycling facility accepts various recyclable materials daily. The City sponsors an annual household hazardous waste collection day to collect and recycle toxic materials. Used oil from the City's vehicle maintenance operations is collected by a local, licensed waste oil hauling firm for disposal. The City has a Dry Weather Screening Program, a Wet Weather Screening Program, and a High Risk Inspection Program to locate the source of and to prevent illicit discharges. The City is utilizing methods suggested in the Center for Watershed Protection's "Illicit Discharge Detection and Elimination" guidance manual to confirm illicit discharges and to identify possible sources of the discharges. Information gathered from these screening programs is used in the City's chemistry library to characterize distinct flow types that may be observed at outfalls, including both clean and contaminated discharges. The City maintains a list of LPDES permitted dischargers that discharge to the City's storm sewer system. The City has enforcement procedures in place to ensure that illicit discharges are terminated.

**7. Spill Prevention and Response** - The permittee has developed a program to prevent/respond/control chemical spills to prevent storm water contamination. The Shreveport Fire Department is authorized to respond to spills, mitigate spills, and supervise hazardous waste spill response and containment, control and decontamination. The City's Environmental Affairs Section is available if needed to assist in locating outfalls, locating and monitoring receiving streams and/or impact on downstream water bodies. The City's Streets and Drainage Division cleans up spills when the spill is non hazardous and the party responsible for the spill is unknown or the situation deems it is necessary. Procedures are in place to prevent the spilled material from entering the storm sewer system. The City's Environmental Affairs Section inspects approximately 50 industries annually that are required to have Storm Water Pollution Prevention Plans (SWPPP). The inspection includes a review of the SWPPP spill response procedures, a review of the Spill Prevention Control and Countermeasure (SPCC) plan, and a visual inspection of the site to determine if the facility is in compliance with environmental regulations. Cross Lake is a primary drinking water supply reservoir. Cross Lake Bridge is a major interstate

highway that crosses Cross Lake. The bridge is designed so that all spills on the driving surface are channeled to a retention pond. Litter, vehicle fluid leaks, deicing materials and other pollutants that reach the surface of the bridge are also channeled to the retention pond. LDOTD manages the bridge and the retention pond to further reduce the drainage of pollutants to Cross Lake.

**8. Industrial and High Risk Runoff** – The City has identified facilities within the City's boundaries that are subject to the Industrial and High Risk Inspection Program and the Industrial and High Risk Monitoring Program. These facilities are inspected annually. The City also conducts annual inspections at an additional 20% of industries identified in its data base. Inspections are followed up by a written communication to the facility detailing the inspector's findings. Facilities that are discovered during the inspection to have excessive storm water quality problems will be issued a Notice of Violation. Noncompliant facilities that fail to address the problems will be issued an Administrative Order and may be fined. Facilities subject to the Industrial and High Risk Inspection Program are required to submit analytical and/or visual monitoring data as required by their SWPPP. Other facilities may be required to submit monitoring data based on problems with storm water discharges discovered through complaints, inspections, illicit discharges, or improper disposal. Standard Operating Procedures (SOPs) have been developed for (1) Industrial Inspection Program; (2) Industrial and High Risk Monitoring Program; and (3) Industrial Storm Water Sources.

**9. Construction Site Runoff** – The City utilizes two permits to require erosion and sediment control for all land clearing activities within the city limits, outside the city limits where city services are available, and outside the city limits within the Cross Lake watershed. The City Code of Ordinance requires all projects involving land disturbing activities to meet City erosion control requirements before a permit is issued. A building permit is required for all sites where a structure is to be built. A site where land altering takes place but where no structure is planned at this time requires a land altering activity permit. The Code of Ordinance requires that an erosion control plan (containing five minimum requirements) be submitted, reviewed for adequacy and completeness, and approved before a permit can be issued. The City reviews each SWPPP to confirm that it meets the minimum LDEQ LPDES permit requirements. Applicants are notified of deficiencies in the SWPPP. Neither a land altering activity permit nor a building permit will be issued until the SWPPP meets the established standards. The City has procedures in place for construction site inspections and enforcement response. Construction sites are inspected. The inspectors check to confirm that a current SWPPP is on site; that the permittee is conducting periodic site inspections and documenting the results of the inspections; that the site erosion and sedimentation control or stabilization measures are being maintained and are effective; that construction site waste is being handled properly; that there is no offsite sediment from vehicle tracking; and that additional controls are not needed. The City has an enforcement response plan that includes a warning, a Notice of Violation, a Notice of Potential Penalty, and an Administrative Order. Appropriate fines are assessed based on the number and severity of violations. A builder may not be issued permits for other projects until the issues at the noncompliant site are resolved. The City uses its web site, meetings, and workshops to train construction site operators in an attempt to keep them current with local and state regulatory requirements.

**10. Public Education:**

The permittees have developed programs to educate employees and citizens (including children) how waste disposal practices and illicit discharges contribute to storm water pollution and degrade water quality. Pollution prevention education encourages proper use, recycling and disposal of oil, litter, chemicals, etc. The City uses a watershed model that helps the public make a visual connection between land use and water quality, and how the improper disposal of oil, litter and chemicals affects our rivers, lakes and bayous. The City has created a kiosk for use at environmental events where they distribute informational materials regarding storm water pollution, water quality, and practices that homeowners can utilize to minimize environmental pollution from residential activities. An educational CD titled, *Cross Lake Watershed*, was created in collaboration with the USGS. The CD was given to all elementary and middle schools in Caddo Parish and many schools in the neighboring Bossier Parish. The CDs are free to anyone who requests a copy. The City's storm water section gives talks and presentations related to storm water pollution and water quality to various companies, engineering organizations and other trade group, and at conferences.

**Public Reporting:**

The City maintains an internet webpage which contains information about storm water quality, residential sources of storm water pollution, and methods of reporting incidents of illicit discharges or other violations of storm water ordinances. The City receives, records, tracks, and responds to citizen's complaints or reports of illicit discharges and illegal dumping to the storm sewer.

**Recycling Promotion and Education:**

The City encourages and promotes recycling through the Shreveport Regional Recycling Facility and during its household hazardous waste collection day. Motor oil, paper products, steel and aluminum cans, computers, cell phones, phone books, used oil and toxic household materials are collected from the general public and recycled. Many private facilities throughout the City, such as auto parts stores, also promote recycling and improving the quality of storm water discharges by accepting used oil and antifreeze.

**Promotion of Proper Use, Application, and Disposal of Pesticides, Herbicides, and Fertilizers:**

The City's internet website has an entire section devoted to educating the public on the proper use of pesticides, herbicides and fertilizers. Educational material from the EPA and other agencies that promote the proper use, application, and disposal of pesticides, herbicides, and fertilizers is distributed to the public during environmental events.

**11. Monitoring Programs -**

a. **Dry weather screening program** – The City's storm sewer system is divided into five major areas that are further subdivided into micro watersheds and laterals that are screened for illicit connections and improper discharges. One area per year is screened which results in the entire storm sewer system being screened during the five year term of the LPDES permit. Drainage lateral discharge points have been identified, are inspected on a rotating basis, and the results of the inspection and/or sampling are maintained in a data base. If a discharge point has

flow or enough water to test, a sample is collected to determine the composition and the possible presence of an illicit discharge. If warranted, additional samples are collected at a discharge point. All information related to the inspection and/or sampling results for each discharge point is recorded in the dry weather screening data base. Past screenings have shown that many discharge points have flow most of the year due to ground water levels and other naturally occurring sources.

b. **Wet weather screening program** - The same micro watersheds that were identified for implementing the Dry Weather Screening Program are used in the Wet Weather Screening Program. Approximately 20 percent of the MS4 is screened each year to identify, investigate, and address areas within the MS4 that may be contributing excessive levels of pollutants to the MS4. Sample collection devices are set out prior to a rain event, where possible. In other areas, grab samples are collected during the first two hours of discharge. The samples are analyzed and the results are recorded in a data base.

c. **Industrial and high risk runoff monitoring program** - The City has an Industrial and High Risk Runoff Monitoring Program to monitor storm water discharges from Type 1 and Type 2 facilities as defined in the LPDES permit. All industries falling into this category are required to submit the monitoring data required in their sector of the LPDES Multi-Sector Storm Water General Permit or other LPDES discharge permits. The industries are required to submit the results of monitoring events conducted during a calendar year at a minimum of once/year. Other industries found to be contributing a substantial pollutant load to the MS4 may be required to submit monitoring data.

**12. Pollution Prevention/Good Housekeeping Practices for Municipal Operations** –The current permit did not include this control measure as a permit condition, and in general, the permittees SWMP does not currently address this control measure; however, in order to consistently regulate both Phase I and Phase II municipalities, the renewal permit will include the requirement that the permittees include this control measure in their SWMP. BMPs shall be developed for this control measure and the SWMP updated and implemented **no later than one year from the effective date of the final permit**.

Each permittee must:

(1) Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Each permittee's program must address maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants from being discharged to the MS4;

(2) Using training materials that are available from EPA, LDEQ, or other organizations, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. Each permittee's program must address controls for reducing or eliminating the discharge of

pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by the permittees, and waste transfer stations;

(3) Develop and implement procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris),

(4) Develop and implement procedures to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices; and

(5) Include operation and maintenance as an integral component of all storm water management programs. This measure is intended to improve the efficiency of these programs and may require new programs or procedures.

In accordance with EPA's Storm Water Phase II Final Rule and EPA's 8/1/96 policy "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits," each permittee shall develop and implement Measureable Goals to assess the effectiveness of the BMPs used to satisfy the requirements of the Control Measures identified in Part II.A.1-12. Measurable Goals shall include months and years in which actions will be undertaken, including interim milestones and the frequency of the actions. Additional program development resources are available through the EPA web site at http://cfpub.epa.gov/npdes/stormwatermonth.cfm. Guidance on Minimum Control Measures and Measurable Goals and a menu of BMPs can be accessed from the "Publications" link on EPA's main storm water program page which is located at http://www.epa.gov/npdes/stormwater. Measurable Goals shall be developed and implemented **no later than one year from the effective date of the final permit**, for the BMPs identified in the SWMP and used to satisfy the requirements of the above-listed 12 Minimum Control Measures.

Implementation of the storm water management program elements discussed above, combined with eligibility conditions in Permit Part I.B.1, monitoring requirements under Part V of the permit for most 303(d) parameters of concern (e.g., TSS, BOD, nutrients, and pathogens), and the Part II permit requirement for describing how the storm water management program addresses 303(d) pollutants of concern, will provide protection for local water quality while TMDLs are being developed and EPA reviews proposed impairment de-listings.

## Diazinon

The permitting authority has reassessed the need for including the pesticide, Diazinon, as a monitoring parameter in the renewal permit.

According to the EPA "Interim Re-registration Eligibility Decision for Diazinon" which was published in the *Federal Register*, based on available usage information, for 1987 through 1997, 39% of the total annual domestic usage is allocated to outdoor residential uses by

homeowners, 19% is allocated to lawn care operators, 11% is allocated to pest control operators, and 31% is allocated to agricultural uses.

The EPA and the registrants have agreed to phase out and cancel outdoor residential lawn and garden uses of the pesticide. Due to this agreement the production, formulation, and sales of Diazinon to retailers was completely ended during 2003. If retailers had any product remaining at the end of 2004, registrants were to buy back that product.

The previous permits included Diazinon as a monitoring parameter for each of the three representative storm water outfalls to gather data to assess the effectiveness of the pesticide component of the public education program. Discharge Monitoring Reports (DMRs) submitted by the permittees were reviewed for the past two reporting years (2006 and 2007). Those DMRs report that Diazinon was not detected during any discharge event from any outfall during that period.

The LDEQ has decided to remove Diazinon as a monitoring parameter in the renewal permit because the pesticide is no longer sold to retailers and is unavailable to the general public for outdoor residential lawn and garden uses.

**DIAZINON VALUES REPORTED ON DMRs**

| *DMR Period* | *Value Reported on DMRs* | | |
|---|---|---|---|
| | *Outfall 001S* | *Outfall 002S* | *Outfall 003S* |
| 5/1/07-10/31/07 | 0 µg/l | 0 µg/l | 0 µg/l |
| 11/1/06-4/30/07 | 0 µg/l | 0 µg/l | 0 µg/l |
| 5/1/06-10/31/06 | 0 µg/l | 0 µg/l | 0 µg/l |
| 11/1/05-4/30/06 | 0 µg/l | 0 µg/l | 0 µg/l |

## VI. PERMIT REOPENER CLAUSE

This permit covers an existing source with discharges to 303(d) waterbodies for which some TMDLs have not been completed. The permit may be reopened to incorporate the results of any total maximum daily load allocation that might later be approved for the receiving waterbodies.

## VII. PERMIT FEES

Using the Annual Fee Rating Worksheet, the permittees' discharges have been assigned 44.99 rating points. Annual permit fees will be based on procedures described in LAC 33:IX.1309.B.

## VIII. PUBLIC NOTICE

The public notice describes the procedures for the formulation of final determination.

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at the Office's address which will be included in the public notice. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice will be published in:

A local newspaper of general circulation
LDEQ Permits Public Notice Mailing List
LDEQ Permits Public Web Page at www.deq.louisiana.gov/news/PubNotice/ .